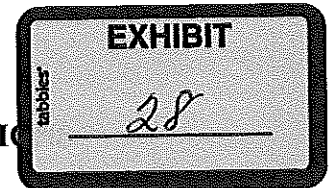


**COMMENTS REGARDING  
PROPOSED STREAM FLOW STANDARDS AND REGULATIONS  
ISSUED OCTOBER 13, 2009**



The Connecticut Department of Environmental Protection (DEP) is proposing changes to the minimum stream flow standards in response to Public Act 05-142 enacted in 2005. The Act directed the DEP to develop regulations that would expand the coverage of the stream flow standards to include all rivers and streams rather than just those the DEP has stocked with fish. The statute also directed the DEP to develop standards that balance the needs of humans to use water for drinking, public safety, irrigation, manufacturing and other lawful water uses with the needs of fish and wildlife that also depend on the availability of water to sustain healthy natural communities.

It is difficult to tell if the regulations, as drafted, achieve the necessary balance between ecological issues and water needs of people. This difficulty in determining if a balance has been achieved is notable with respect to the groundwater portion of the regulation, which is where our area of expertise lies. As drafted, it is hard to accurately assess the impact or benefit the proposed regulation would have on stakeholders. The comments presented below outline some concerns regarding the proposed regulation as drafted with respect to the groundwater portion of the proposed regulation. As a result of these concerns, in addition to concerns voiced by other stakeholders, policymakers are encouraged to reject the regulations as currently drafted and work with all stakeholders to make changes that would benefit both the environment and preserve the needs of water users.

Our firm has performed several analyses for water utilities across the state in an attempt to determine how the regulations may affect them with respect to their groundwater supplies and to determine if there are issues with how the regulations are currently drafted. This involved calculating trigger levels based on the methods presented in the regulations and draft guidance documents. Several concerns and questions have been raised as a result of this work.

**General Comments**

- Many of the aspects for implementing the proposed regulations are left to preparation of guidance, as the proposed regulations are lacking sufficient detail with respect to groundwater supplies. Guidance documents should help the user comply with regulations, not set policy due to insufficient detail in regulations. Due to lack of sufficient detail in the regulation and many unknowns, the stakeholders cannot properly evaluate and comment on the implications of the regulations if adopted. A regulation that is insufficiently detailed results in unknown and changing policy that is presented in guidance. This guidance does not go through a formal review and public comment period, yet has profound impacts on the stakeholders. For example, all of the mechanisms utilized to evaluate compliance with the proposed regulation with respect to "other structures" (i.e., wells) are presented in the guidelines, not the regulation itself.
- The calculation of flow statistics for regulated streams is critical in establishing the maximum alteration to the streams for each bioperiod. As currently drafted, the proposed regulations rely on methods developed by the U.S. Geological Survey (USGS) to

estimate flow. Although it is reasonable to use existing and/or future USGS-derived methods to calculate stream flow statistics for unaltered streams, the use of these methods to establish flow statistics directly (within 1 mile) downstream of a dam is of concern. The presence of a dam could drastically alter the flow statistics utilized to calculate the maximum alteration allowed by "other structures" (wells), thereby making the evaluation of the impact the proposed regulations would have on wells difficult to assess.

- As drafted, the proposed regulations contain no special conditions or exemption to allow compliance with other regulatory obligations including those of the Connecticut Department of Public Health, Connecticut Department of Public Utility Control, or Office of Consumer Counsel if withdrawal limitations are imposed. The regulations will have a profound impact on some utility's margins of safety, putting them in a situation where they will have insufficient supply (even though they had sufficient supply prior to the regulations) and few options to restore that capacity. This puts people and economic growth at risk.
- As drafted, the proposed regulations result in a requirement to reduce water withdrawals. There are several water utilities or certain service areas of water utilities that rely solely on groundwater for their supply and have no alternate source of water. Many of these systems are not in areas where an interconnection with another utility is possible, or if it is possible, the adjacent utility does not have excess water to sell, or they will not have sufficient water to sell once their margins of safety are reduced due to the proposed regulations. Therefore, it is known that these utilities or systems have no way to comply with the regulation because well field pumping must match demands. It is unreasonable to issue a regulation where it is known up front that many stakeholders cannot comply with it and to have the regulation be silent on this reality.
- To address potential safe yield issues, the DEP incorporated triggers in response to drought condition for dam owners. Similar triggers should be implemented for water utilities with "other structures" (wells), especially in cases where a large portion of the utility's supply comes from wells.

#### **General Comments Regarding Guidelines for Evaluating Streamflow Depletion from Groundwater Withdrawals**

- The operation of a dam that impounds a river or stream system with an upstream drainage area of three square miles or less and release a minimum of 0.1 cfs of water are exempt from the provision of the Stream Flow Standards and Regulations. There needs to be a similar exemption for water supply wells. Analyses completed by LBG has documented instances where a well is in compliance with respect to the main river or stream but not in compliance with respect to small tributaries that flow through a well field. In one instance, this resulted in a 70-percent reduction of the registered withdrawal rate during the rearing and growth bioperiod. The magnitude of the reduction is related to a small drainage basin area of the stream (less than 2 square miles) and the fact that the

tributary's estimated Q99 (flow exceeded 99 percent of the time) was only 0.2 cfs. The theoretical 70 percent reduction in available yield would result in the need for additional supply that would be difficult to get permitted. These fundamental exemptions should be part of the regulation, not guidance.

- Bedrock wells that withdrawal less than 250,000 gpd (the same threshold for applicability under a general diversion permit) should be exempt because there is no cost-effective scientific way to evaluate potential impact to surface-water bodies.

Thank you for the opportunity to comment on these wide-reaching regulations.

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January 21, 2010

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